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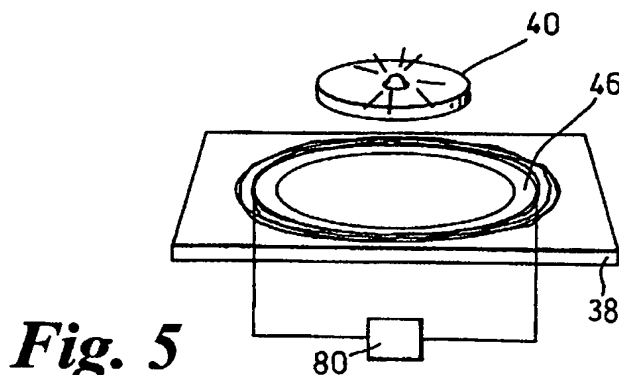
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(56) Documents Cited
GB 2303309 A **US 6021949 A**
US 5895321 A

(58) Field of Search
UK CL (Edition T) **A6H HLC HLK HLM, G4V VAA**
INT CL⁷ **A63F 7/00 9/00, G07F 17/32 17/34 17/38**
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(54) Abstract Title
A programable playing piece and an amusement machine

(57) A playing piece 40 eg a token for use in an entertainment machine eg a coin pusher machine comprises an identifier to provide the playing piece with an identity. The identifier may be an electronically readable device which could preferably be read remotely from the playing piece by means of a signal that can be transmitted by the playing piece or interrogated by a remote signal. The identifier may comprise a Radio Frequency Identity Device (RFID) to inductively couple power from a magnetic field generated by a coil 46 applied to the playing piece to power the internal electronics, alternatively the power may come from a battery or solar cell or alternatively the identifier may be a bar code or magnetic region. The playing piece may have a memory to hold a value particular to that playing piece, the memory being writable which allows the value assigned to the playing piece to be variable. The playing piece may include an information generating means in the form of an LED 44, LCD or buzzer that is able to display sounds, graphics, symbols etc to the user. Also included is an amusement machine in the form of a coin pusher that has a plurality of playing pieces with an identifier and one or more readers capable of receiving the electromagnetic signal from the playing piece and a method of improving the level of player appeal.



At least one drawing originally filed was informal and the print reproduced here is taken from a later filed formal copy.

The claims were filed later than the filing date but within the period prescribed by Rule 25(1) of the Patents Rules 1995.

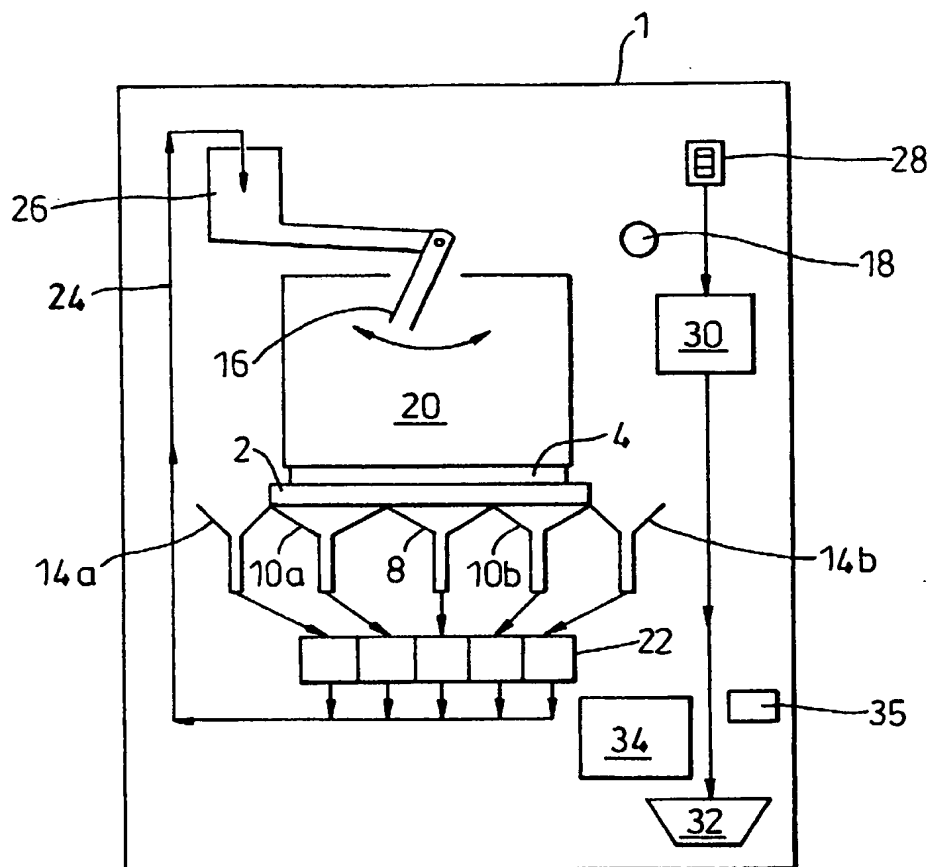


Fig. 1

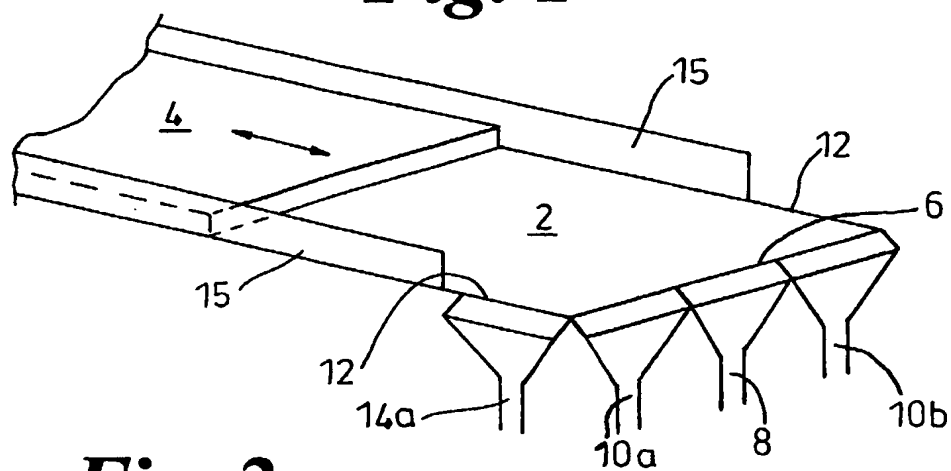


Fig. 2

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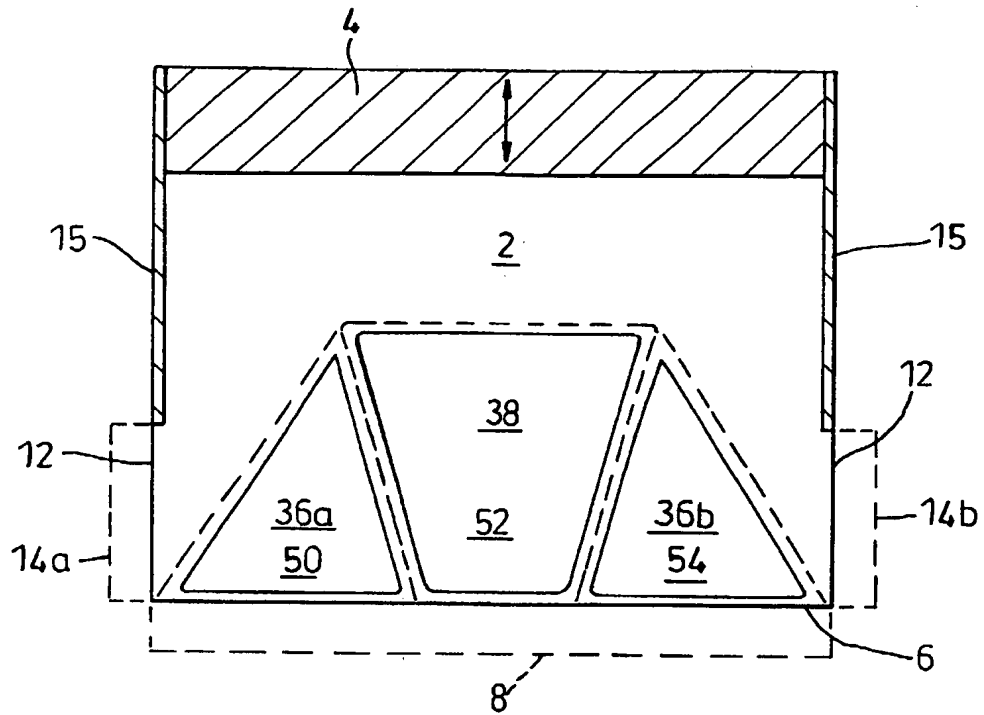


Fig. 3

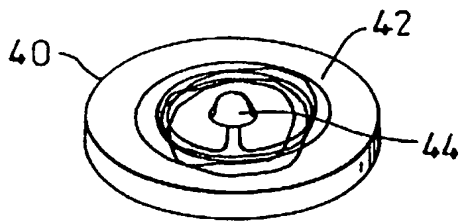


Fig. 4

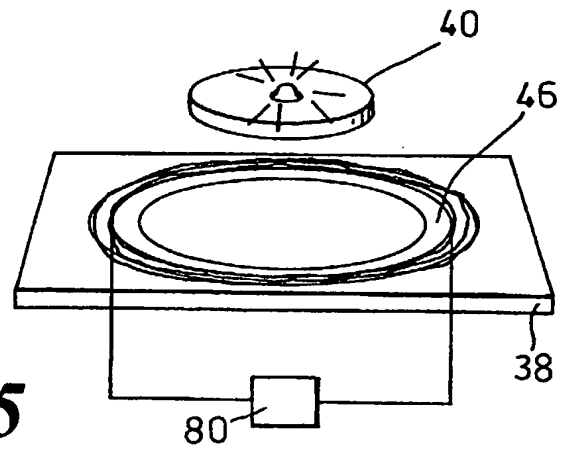


Fig. 5

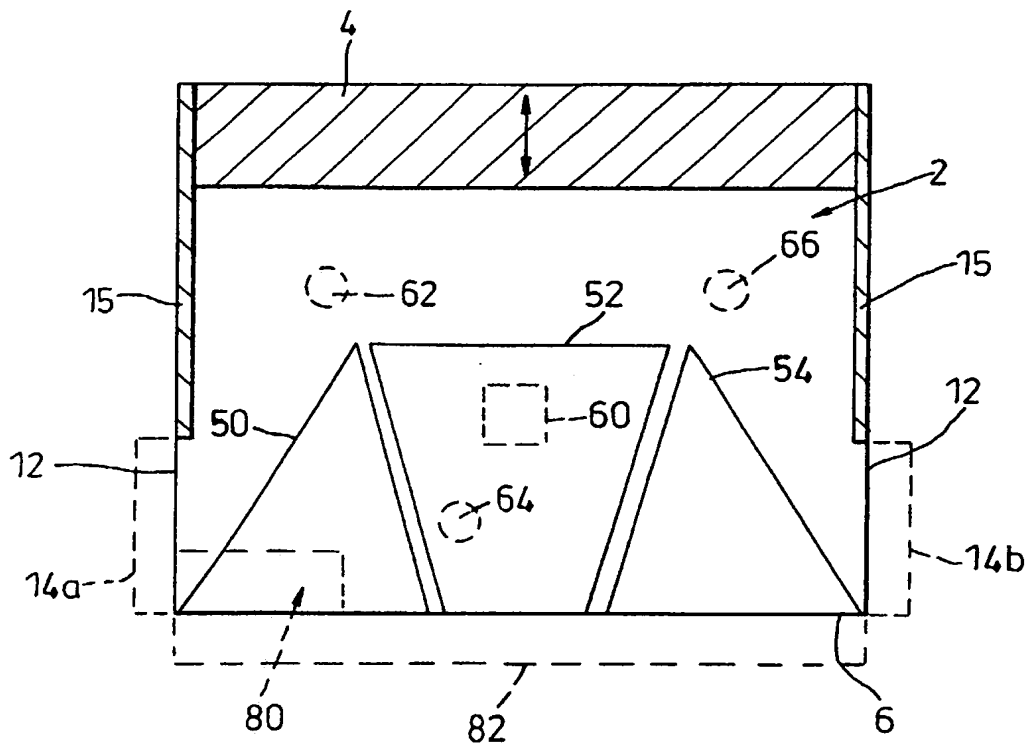


Fig. 6

AN ENTERTAINMENT MACHINE

5 This invention relates to an entertainment machine and a method of increasing player appeal of an entertainment machine. The invention is particularly, but not exclusively, concerned with a type of entertainment machine commonly referred to as a coin pusher entertainment machine.

10 Traditionally, such entertainment machines have one or more surfaces arranged to hold coins and a coin pusher for pushing the coins along the, or each, surface. In some embodiments coins can be pushed off an edge of the surface into a win chute to be paid directly to a player. In use, a player inserts coins into the machine, which are deposited onto the surface in the hope that a greater number of coins are pushed from the
15 surface by the coin pusher.

One prior art coin pusher provides a playing piece re-circulation loop, which forms a closed loop inside the machine and such a machine is shown in GB 2 303 309. A player inserts a coin into the machine to play
20 and a playing piece is dispensed onto the surface from an internal store. If any playing pieces are knocked from the surface, over a win edge region, a device detects the number pushed off the surface and dispenses to the player the same number of coins from a store of coins. The playing pieces may or may not themselves be coins.

25 It will be appreciated that the entertainment machines must provide an incentive to a player playing the machine. There is therefore, an ongoing requirement to provide new games that increase the player appeal of the machine. The machine shown in GB 2 303 309 is aimed at making the
30 pusher type of machine more secure, but it does not try to increase the player appeal of the machine. Indeed, it does not fundamentally change

the nature of the game provided by the machine when compared to the machines that were known before its conception.

It is an object of the invention to provide an entertainment machine that
5 has increased player appeal when compared to prior art entertainment machines.

According to a first aspect of the invention there is provided an entertainment machine playing piece for use in an entertainment machine,
10 said playing piece being provided with an identifier providing the playing piece with an identity.

Such an arrangement is advantageous because it can allow that particular playing piece to be identified from other playing pieces. Such
15 identification may be used to increase the security of a game in which the playing piece is used, or may be used to provide unique game features, etc., which will become apparent from the following. In some embodiments such a playing piece may be used to confirm the identity of a prize paid to a player.

20 The identifier used on the playing piece may be unique. However, the identifier is preferably unique between playing pieces contained in any one entertainment machine. Providing such an identifier is advantageous because it can allow any one playing piece (within one machine at least)
25 to be tracked, have its identity confirmed, etc.

In a preferred embodiment the identifier comprises an electronically readable device, which can preferably be read remotely from the playing piece. Such an arrangement is advantageous because it allows the identity
30 of the playing piece to be ascertained, without contacting the playing

piece. The electronically readable device may transmit its own signal, or be interrogated by a remote signal.

In one particular embodiment the identifier comprises a Radio Frequency Identity Device (RFID), which uses well known technology to inductively couple power from a magnetic field applied to the playing piece. Such an RFID device comprises an inductor in which current is induced by the applied magnetic field, and said current can be used to power electronics associated with the playing piece. Examples of suppliers for RFID devices include Destron Fearing, Temic, Texas Instruments, etc.

Alternatively, or additionally, a power source such as a battery, solar cell, or the like may be provided to power the playing piece.

The playing piece may comprise a memory, which may comprise a register or the like. The memory may be arranged to hold a data appertaining to the playing piece in which the memory is provided. For example the memory may be arranged to hold the value assigned to that playing piece.

Conveniently, the memory can be written to, and the data held therein may be alterable. Such an arrangement is convenient because it can, for example, allow the value of a playing piece to be varied, by the electronics within the playing piece writing to the memory.

A memory to which data can be written may be in addition to a memory, or register or the like, holding the identity of the playing piece, which is preferably read only. It is advantageous if the identity given to a playing piece is permanent, and cannot be altered.

Some embodiments of the playing piece may include an information generating means, arranged to generate information perceivable by a player of a machine in which the playing piece is being used. Such an arrangement is useful because it may for instance be used to display
5 information such as value of the token to a player.

The information generating means may comprise any one or more of the following: LED, seven segment display (which may be LED, or LCD based), LCD, or other such, display, buzzer. An LED may be used to
10 change the colour of a playing piece, or to cause it to illuminate. A seven segment display and/or LCD display may be used to display text and /or numbers to a player. A display may be able to display other information, such as graphics, symbols, etc., to a player. A buzzer may be caused to play sounds, jingles, etc. that may be used to convey
15 information to a player.

Preferably, the playing piece is arranged to transmit a signal, which preferably contains data corresponding to its identifier. For example the data corresponding to the identifier may comprise a number, or may be a
20 group of alphanumeric characters, etc. An advantage of such a playing piece is that it can allow the playing piece to be read remotely.

In alternative embodiments the identifier may comprise any other form of identifier, which is preferably machine-readable. For example the
25 identifier may be a bar code, or the like, applied to the surface of the playing piece. A bar code scanner may read such a bar code. Alternatively, the identifier may comprise a magnetic region containing data that can be read.

According to a second aspect of the invention there is provided a group of playing pieces according to the first aspect of the invention, with each playing piece have a different identifier.

- 5 The group of playing pieces may additionally contain a plurality of playing pieces with no identifier.

The group may contain playing pieces containing identifiers relative to playing pieces without identifiers in roughly a ratio of 1:10 (ten times as
10 many playing pieces without identifiers as playing pieces with identifiers). In other embodiments the playing pieces may be maintained in roughly any of the following ratios: 1:5, 1:7, 1:12, 1:15, 1:20, 1:25, 1:50, or any ratio in between these.

- 15 According to a third aspect of the invention there is provided the combination of at least one entertainment machine playing piece being provided with an identifier providing the playing piece with an identity, and an entertainment machine containing at least one such entertainment machine playing piece, said machine being provider with a reader capable
20 of reading the identifier provided on the playing piece.

The reader may comprise at least one receiver, capable of receiving a signal transmitted by the at least one playing piece. The reader is preferably capable of receiving an electromagnetic signal.

25

- Preferably, the reader comprises a plurality of receivers, and more preferably, at least three receivers. Such an arrangement is advantageous because it allows positional information to be determined for the playing piece that transmitted the signal. Indeed, if three, or more, receivers are
30 provided the machine may be able to determine roughly the exact position of a playing piece.

The entertainment machine may be arranged to provide a game, which is influenced by the position of one or more playing pieces. For example, the position of playing pieces on a playing field may determine their value. In one particular embodiment the playing pieces are arranged to generate information perceivable by a user to indicate the value of the playing piece.

The, or each, playing piece may have any one, or more, of the features discussed in relation to the first aspect of the invention.

In alternative, or additional, embodiments the reader may comprise a bar code reader, a microphone, a camera, or any other suitable means for reading an identifier provided on a playing piece.

The machine may comprise a pusher type machine arranged to contain a plurality of playing pieces provided on a surface, or playing field, arranged such that playing pieces are periodically caused to fall from the playing field.

Preferably, the entertainment machine may comprise a playing piece dispensing means for dispensing playing pieces onto the surface. Such an arrangement conveniently allows playing pieces to be placed onto the surface.

The playing piece dispensing means may be arranged to dispense playing pieces onto the surface in response to a player inserting a predetermined amount of credit into the machine. The credit can be purchased by any means common in the art such as coins, tokens, credit cards, etc.

Conveniently the machine comprises a transfer means to transfer playing pieces which have passed over at least one edge of the surface to the playing piece dispensing means. The transfer means may be an escalator, such as a coin escalator.

5

The machine may further comprise a playing piece counter arranged to count playing pieces passing over the edge of the surface.

10 Preferably, the surface, playing piece dispensing means, playing piece counter and transfer means constitute a closed loop for re-circulating playing pieces internally within the entertainment machine. Therefore, the playing pieces are not paid directly to a player and if the machine is tilted or shaken prizes are not dispensed. Although the pusher preferably has a closed loop arrangement, it is conceivable that an open loop pusher
15 in which playing pieces are not circulated within the machine may be possible.

A playing piece detection means may be arranged to detect playing pieces passing over a win edge region of the surface. The win edge region
20 preferably comprises a front edge region. It is traditional in coin pushers for coins falling over the front edge region of the surface to result in a win, and therefore such an arrangement is advantageous because it will be familiar to players of such machines. (The playing piece detection means may or may not be the same as the playing piece counter).

25

The machine may also be arranged to allow playing pieces to fall over losing edge regions of the surface, in which no prize is given for playing pieces falling thereover. The losing region preferably comprises side edge regions of the surface. Again, it is traditional in coin pushers for
30 coins falling over edge regions to be lost from the game in progress, and

such a machine will therefore be advantageous because it will be familiar to players of such machines.

5 The machine may be arranged to allow a plurality of players to play the machine at any one time (a multi-player game). However, in an alternative embodiment a single player machine may be provided.

10 In alternative embodiments the machine may be any other form of entertainment machine. The machine may be pool table, or the like, and balls provided for play on the table may be playing pieces. The machine may be a pin-ball machine, and the playing pieces may be balls provided for use in the machine.

15 According to a fourth aspect of the invention there is provided an entertainment machine capable of receiving at least one playing piece having an identifier associated therewith, said machine comprising a playing piece identifier reading means.

20 The machine according to a fourth aspect of the invention may have any of the features described in relation to the machine of the third aspect of the invention.

25 According to a fifth aspect of the invention there is provided a method of improving the player appeal of an entertainment machine containing one or more playing pieces comprising providing at least one of the playing pieces with an identifier and providing the machine with a means to read the identifier.

30 Embodiments of the invention will now be described by way of example only with reference to the following drawings:-

Figure 1 shows an entertainment machine according to one embodiment of the invention;

5 Figure 2 shows a playing surface and pusher of the machine according to the embodiment of Figure 1;

Figure 3 shows a transmitter beneath the playing surface

10 Figure 4 shows a token containing electronics

Figure 5 shows a coil in a transmitter and the token of Figure 4 responding to a signal produced by the transmitter.

The machine of Figure 1 is of the type known as a coin pusher and is
15 housed in a cabinet 1. A playing field 2 is provided by a generally flat horizontal upper surface on which a plurality of playing pieces (not shown) are distributed. A playing piece pusher 4, in the form of a stage or box, is provided which moves backwards and forwards across at least a part of the playing field. At a front edge 6 of the playing field 2 there
20 are provided three "win" chutes 8, 10a, 10b, and at each of the side edges 12 of the playing field 2 there is provided a "lose" chute 14a, 14b. The win 8, 10a, 10b and lose 14a, 14b chutes are each arranged to catch playing pieces falling over an edge of the playing field 2. Side walls 15 are provided at edge regions of the playing surface to contain the playing
25 pieces where there is no chute to collect them.

A directional playing piece dispenser 16 is provided above the playing field 2 and an outlet thereof is arranged to oscillate over an arc of roughly 90°, such that when playing pieces are released therefrom they
30 fall from a random point towards the playing field 2. A player presses a playing piece release button 18 to release a playing piece from the

dispenser, which falls into a substantially vertical transparent region 20, comprising, in this embodiment, two parallel sheets of material spaced such that there is a gap between them just larger than a playing piece's thickness. At its lower end, the transparent region 20 is open to allow
5 playing pieces to fall onto playing field 2.

The win 8, 10a, 10b and lose 14a, 14b chutes are connected to hoppers 22, such that playing pieces falling from the playing field pass through the chutes and into the relevant hopper 22. Each of the hoppers connected to
10 a chute 8, 10a 10b, 14a, 14b, which includes a counting means and/or a detecting means for counting and/or detecting playing pieces entering into the hopper. The counting / detecting means include a reader for reading identifiers associated with playing pieces. The hoppers are connected to a transfer means, in this case, an escalator unit 24, which raises the playing
15 pieces to a storage container 26 connected to the playing piece dispenser 16.

Figure 4 shows an entertainment machine playing piece 40, or identifiable playing piece containing a receiving coil 42, a light emitting diode (LED)
20 44 and additional electronics (not shown) to control the function of the LED. An RFID tag constitutes at least some of the components within the identifiable playing piece 40, and provides an identifier. The receiving coil 42 and the additional electronics can be combined to provide a decoder that can receive instructions to a specific playing piece,
25 or group of playing pieces. Providing the ability to issue instructions to a specific playing piece allows that playing piece to be controlled in a different manner to others. The machine also contains a plurality of playing pieces that have roughly the same physical dimensions and appearance as the identifiable playing pieces 40 shown in Figure 4, but
30 which do not contain the receiving coil, the LED, nor the electronics.

The counting/detecting means provided in each of the hoppers 22 are capable of reading any identifiable playing pieces that pass therethrough. In the embodiment described the counting/detecting means comprises a receiver capable of reading the RFID device within an identifiable playing
5 piece 44. However, other mechanisms may be possible.

A coin slot 28 for receiving coins is connected to a coin validator 30. A coin store 32 is also connected to the coin validator 30 so as to allow coins to pass from the coin slot 28 through the coin validator 30 and into
10 the store 32.

The validator 30 determines the value of the coins entered into the coin slot 28 and converts this value into a number of credits which are displayed in a display window 34. When the playing piece release button
15 18 is pressed, the number of credits displayed in the display window 34 is decremented by a predetermined amount.

A "win" button 35 is provided to allow a player to collect his/her winnings.
20

A reader capable of reading identifiable playing pieces 40 can be provided using known Radio Frequency Identification Device (RFID) technology (shown schematically in Figure 5 for one of the transmitters 38) in which a current in a coil 46 produces a local magnetic field, providing a power
25 signal, to which a playing piece 40 placed above the transmitter can take power therefrom (the magnetic field inducing a current in an inductor within the playing piece). To use the additional electronics a high frequency signal is modulated onto the power signal produced by the coil 46. This high frequency signal is filtered from the power signal by
30 the electronics within the playing piece 40 and can be decoded to control the LED 44 as desired. The frequency of the high frequency signal may

itself provide the instructions; i.e. a signal received at a predetermined first frequency may indicate a first action should be performed, and a signal received at a second predetermined frequency may indicate that a second action should be performed. In a second embodiment the high
5 frequency signal may include instructions and allow individual playing pieces to be specifically addressed, and provided with individual instructions.

In one embodiment, which can be seen in Figure 3, the playing field 2 is
10 divided into a high value region 52, and two low value regions 50, 54. The high value region 52 is associated with a high value transmitter 38 transmitting a power signal modulated at a first frequency, and the two low value regions 50, 54 are associated with low value transmitters transmitting a power signal modulated at a second frequency. The
15 transmitters are constructed so that the signals transmitted therefrom provide regions above them have of the desired shape.

When an identifiable playing piece 40 receives the signal from the high value transmitter 38, it flashes, whereas when a playing piece 40 receives
20 a signal transmitted from a low value transmitter 36a, 36b it continuously lights. Therefore, it is the frequency of the modulated signal that is used to contain the instructions for any playing piece 40 receiving that signal. The different lighting of the playing pieces provides a difference of appearance that indicates to a player that the respective playing pieces
25 will have different values when they fall from the playing field 2.

It will be seen from the shape of the regions in Figure 3 that playing pieces progressing generally towards "lose" chutes 14a, 14b are not lit as there is no transmitter directly beneath the playing field 2 in those areas,
30 and therefore, the machine is arranged such playing pieces in these

regions do not receive a power, nor signal modulated onto the power signal.

Another embodiment relying on addressing individual playing pieces is described in relation to Figure 6. Parts are the same as those described elsewhere are referred to with the same reference numerals. Underneath the playing field 2 there is provided a single transmitter 60 capable of transmitting a power signal to power any identifiable playing pieces 40 present on the playing field 2. Control circuitry 80 is provided and controls the signal being transmitted by the transmitter 60. Further, three separate receivers 62, 64, 66 are provided underneath the playing field 2.

Each receiver 62-66 is connected to the control circuitry 80, and passes signals that have been received thereto, together with a measure of the strength of each signal.

In use, each identifiable playing piece 40 has an individual, unique, address. The control circuitry 80 can modulate the power signal transmitted by the transmitter 60 to be specific to a predetermined one of the individual identifiable playing pieces 40. That is, the signal is modulated according to a predetermined protocol, such that the signal contains a unique address, followed by a command. Further, as is known in the field of RF identity tags, each identifiable playing piece can transmit its own signal, which can be received by any one of the receivers 62-66. (The energy obtained from the transmitted power signal is used by the electronics within the playing piece to drive the coil 42 to transmit a signal. The signal transmitted by a playing piece 40 contains the unique address of the playing piece, so that control electronics can determine from which playing piece 40 the signal has been received.)

piece dispenser 16 when playing piece release button 18 is pressed. The playing piece passes through transparent region 20 and drops onto playing field 2.

- 5 This additional playing piece is introduced in the hope that it will cause a playing piece near front edge 6 to fall into a "win" chute through the motion of the pusher 4 pushing the extra playing piece into those already on the playing field 2. Playing pieces progress generally towards the front edge 6, but may also progress towards side edges 12 and fall into
10 "lose" chutes 14a, 14b.

- In embodiments where the playing field 2 is divided into regions the front edge 6 is divided into score regions such that playing pieces which fall into "win" chute 8 score more credits than those that fall into "win"
15 chutes 10a, 10b. To heighten the player's anticipation of a scoring event, playing pieces are visibly distinctive in a first manner, e.g. flash if it seems more likely from their position on playing field 2 that they will fall into "win" chute 8 and visibly distinctive in a second manner, e.g. continuous illumination, if it seems more likely that they will fall into
20 "win" chutes 10a, 10b.

- Any playing piece which falls into a "win" chute is counted and converted into credits at a predetermined conversion rate. The conversion rate is higher for playing pieces which have fallen into "win"
25 chute 8 than for playing pieces which have fallen into "win" chutes 10a or 10b. The credit level displayed in display window 34 is increased by a corresponding amount.

- Playing pieces which fall into any chute are, after counting, transferred to
30 escalator unit 24 and into the storage container 26, ready for recirculation.

The game ends either when the player has insufficient credits to exchange for a playing piece or the player chooses to cash out by pressing button 35 and collecting the coins dispensed from the store 32.

5

The RFID technology discussed above provides the possibility of instructing an individual playing piece or group of playing pieces to behave in a particular way. The decoder can either respond differently to different signal frequencies or can respond only when that playing piece
10 is specifically addressed. From time to time, all or a portion of the playing pieces on the playing field could be caused to flash, if they are identifiable playing pieces, or change their appearance in another way.

In a further example, a playing piece may be visibly identifiable from the
15 time it falls onto the playing field 2 and may maintain that identity whilst it traverses the field until it falls from an edge of the playing field 2, rather than having its visual appearance change as it moves through different regions of the playing field 2, or temporal periods.

20 Another possibility to utilise tokens with a identifiable tokens, is to produce patterns on the playing field 2. Tokens 40 containing LEDs could be lit in a star formation or words could be written in lights across the playing field, perhaps in response to a high value win.

25 Tokens which fall into the chute 8 are, after identification, transferred to escalator unit 24 and into the storage container 26, ready for recirculation.

CLAIMS

1. An entertainment machine playing piece for use in an entertainment machine, said playing piece having an identifier providing the playing
5 piece with an identity.
2. The playing piece according to Claim 1 in which the playing piece is arranged to emit a signal.
- 10 3. The playing piece according to Claim 1 or Claim 2 in which the identifier is an electronically readable device.
4. The playing piece according to any of Claims 1 to 3 in which the identifier is unique, at least among playing pieces for use in a single
15 entertainment machine.
5. The playing piece according to any of the preceding Claims which is arranged such that the identity can be read remotely from the playing piece.
20
6. The playing piece according to any of Claims 1 to 5 in which the playing piece further comprises a memory.
7. The playing piece according to Claim 6 in which the memory can
25 be written to.
8. The playing piece according to Claim 7 in which the memory is arranged to hold the value of the playing piece.
- 30 9. The playing piece according to any of the preceding Claims in which the identifier comprises a Radio Frequency Identity Device (RFID).

10. The playing piece according to any of the preceding Claims in which further comprises an information generating means, arranged to generate information perceivable by a player of a machine in which the playing piece is being used.
11. The playing piece according to Claim 2, in which the signal contains data corresponding to the identifier.
12. A group of playing pieces according to Claims 1 to 11 wherein each playing piece has a different identifier.
13. The group of playing pieces according to Claim 12 which additionally comprises a plurality of playing pieces with no identifier.
14. The combination of at least one entertainment machine playing piece having an identifier providing the playing piece with an identity, and an entertainment machine containing at least one such entertainment machine playing piece, said machine being provided with a reader capable of reading the identifier of the playing piece.
15. The combination of the playing pieces and the entertainment machine according to Claim 14 in which the reader comprises at least one receiver capable of receiving a signal generated by the at least one playing pieces.
16. The combination of the playing pieces and the entertainment machine according to Claim 14 or Claim 15 in which the reader is capable of determining roughly the position of a playing piece.

17. The combination of the playing pieces and the entertainment machine according to Claim 16 in which the entertainment machine is arranged to provide a game which is influenced by the position of one or more playing pieces.

5

18. The combination of the playing pieces and the entertainment machine according to any of Claims 14 to 17 in which the at least one playing piece has any of the features of the playing piece according to Claims 1 to 11.

10

19. The combination of the playing pieces and the entertainment machine according to any of Claims 14 to 19 in which the entertainment machine is arranged to allow more than one player to play the machine at any one time.

15

20. The combination of the playing pieces and the entertainment machine according to any of Claims 14 to 19 in which the entertainment machine is a pusher type machine arranged to contain a plurality of playing pieces provided on a surface and arranged such that playing pieces can, periodically, be caused to fall from the surface.

21. The combination of playing pieces and the entertainment machine of Claim 20 which further comprises a playing piece dispensing means arranged to dispense playing pieces onto the surface.

25

22. The combination of playing pieces and the entertainment machine of Claim 21 in which the playing piece dispensing means is arranged to dispense playing pieces onto the surface in response to a player inserting a predetermined amount of credit into the machine.

30

23. The combination of playing pieces and the entertainment machine of Claim 21 or Claim 22 which further comprises a transfer means arranged to transfer playing pieces which have fallen from the surface to the playing piece dispensing means.

5

24. The combination of playing pieces and the entertainment machine of any of Claims 20 to 23 which further comprises a playing piece counter arranged to count playing pieces falling from the surface.

10 25. The combination of playing pieces and the entertainment machine of any of Claims 20 to 24 which further comprises a closed loop for recirculation of playing pieces therein comprising any one or more of the following: the surface; the playing piece dispenser; the transfer means; the playing piece counter.

15

26. An entertainment machine capable of receiving at least one playing piece having an identifier associated therewith, said machine comprising a playing piece identifier reading means.

20 27. The entertainment machine according to Claim 26 which has any of the features of the machine of Claims 14 to 25.

28. A method of improving the player appeal of an entertainment machine containing one or more playing pieces comprising providing at
25 least one of the playing pieces with an identifier and providing a machine with a means to read the identifier.

29. An entertainment machine playing piece substantially as described herein and with reference to the accompanying Figures 4 and 5.

30

30. A group of playing pieces substantially as described herein and with reference to the accompanying Figures 4 and 5.

31. A combination of at least one playing piece and at least one
5 entertainment machine substantially as described herein and with reference to the accompanying Figures 1 to 6.

32. An entertainment machine substantially as described herein and with reference to the accompanying Figures 1 to 6.

10

33. A method of improving the player appeal of an entertainment machine substantially as described herein and with reference to the accompanying Figures 1 to 6.

15 34. A machine readable medium containing instructions to cause an entertainment machine to function as a machine according to any of claims 14 to 29, when programmed thereinto.

35. A machine readable medium containing instructions capable of
20 causing an entertainment machine to perform the method of Claim 28 when programmed into an entertainment machine.



Application No: GB 0125411.9

Claims searched: 1-28

Examiner: H Gupwell

Date of search: 5 July 2002

Patents Act 1977

Search Report under Section 17

Databases searched:

UK Patent Office collections, including GB, EP, WO & US patent specifications, in:

UK Cl (Ed.T): A6H: (HLC, HLK, HLM). G4V: (VAA).

Int Cl (Ed.7): A63F: 7/00, 9/00. G07F: 17/32, 17/34, 17/38.

Other: Online: EPODOC, WPI, JAPIO.

Documents considered to be relevant:

Category	Identity of document and relevant passage	Relevant to claims
Y	GB 2303309 A (CROMPTON) whole document.	20-27
X,Y	US 6021949 A (BOIRON) see lines 6-15 column 2 and lines 66 column 3 to lines 1-28 column 4.	X 1-15, 18,19,82 Y 20-27
X,Y	US 5895321 A (GASSIES et al) see lines 37-63 column 4.	X 1-15, 18,19,82 Y 20-27

X Document indicating lack of novelty or inventive step
Y Document indicating lack of inventive step if combined with one or more other documents of same category.

& Member of the same patent family

A Document indicating technological background and/or state of the art.
P Document published on or after the declared priority date but before the filing date of this invention.

E Patent document published on or after, but with priority date earlier than, the filing date of this application.